

8.A BIKE ROUTE PLAN

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INTRODUCTION:

This section of the Culpeper County Comprehensive Plan addresses potential locations for defined bike routes. The plan is intended to accommodate recreational bicycling, but it is also intended to enhance opportunities to utilize bicycles as a mode of transportation. As such, this section is included in the Transportation Section of the Comprehensive Plan. However, the focus remains largely on recreation.

The Bike Route Plan identifies an array of potential on and off road facilities. By adopting this plan, it is the intent that these facilities be included as an aspect of road improvement projects, to be constructed in conjunction with such projects. It may be many years before all of the bike facilities envisioned will become a reality. By identifying specific routes in this plan, and by adopting the plan, we are taking the first and perhaps most critical step in providing these facilities for the citizens of our community.

**RESOLUTION
TO ADOPT THE CULPEPER COUNTY BIKE ROUTE PLAN**

WHEREAS, the Culpeper County Board of Supervisors desires to provide bicyclists in the County with needed, safe, and functional facilities on which to travel; and

WHEREAS, bicycle facilities must be planned in advance in order to allow for public participation in the planning process and in order to allow the Virginia Department of Transportation (VDOT) to account for them when undertaking road construction processes; and

WHEREAS, a Bike Route Plan has been prepared which was subjected to public comment, reviewed by VDOT, and coordinated with similar efforts by the Town of Culpeper; and

WHEREAS, this Bike Route Plan has been studied, subjected to public hearing, and recommended for approval by the Culpeper County Planning Commission, as well as the Parks and Recreation Committee; and

NOW THEREFORE BE IT RESOLVED, that the Culpeper County Board of Supervisors adopt the Bike Route Plan for inclusion in the 2005 Culpeper County Comprehensive Plan; and

BE IT FURTHER RESOLVED, that VDOT is encouraged to utilize this Plan and to assist in the construction of the recommended bike facilities to the greatest extent possible.

Resolved this day of , 2005

John F. Coates
Chairman, Culpeper County
Board of Supervisors

Attest: _____
Frank Bossio
Clerk to the Board

GOALS AND OBJECTIVES:

Goal: To provide a network of bicycle and pedestrian facilities which promote bicycling and walking for both transportation and recreation purposes.

Objective: Identify and provide connections to attractive recreational destinations throughout the Town and County.

Objective: Identify and provide connections between concentrated areas of employment or shopping and residential communities.

Objective: Provide connections to all Culpeper County public schools.

Goal: To develop a network of bicycle and pedestrian facilities which emphasizes safety.

Objective: To design facilities for maximum safety where bicycles and motor vehicles share the road.

Objective: Design facilities appropriate to the skill levels of the projected users.

Goal: To coordinate the development of a network of bicycle and pedestrian facilities between the Town and County of Culpeper.

Objective: Develop a bicycle and pedestrian trails plan which will serve the needs of both Town and County residents.

Objective: Ensure coordination between the location and sequence of construction of facilities in the Town and County.

DESIGN STANDARDS AND PROGRAM TYPES

Two publications contain standards that should be used by Culpeper County and the Town to design bicycle facilities.

- Selecting Roadway Design Treatments to Accommodate Bicycles, published by the Federal Highway Administration in January, 1994.
- 1999 AASHTO Guide for Development of Bicycle Facilities

Bicycle facilities should be planned with a “design bicyclist” in mind. Both of the above publications recognize three levels of bicyclists: advanced bicyclists, basic bicyclists and children.

Advanced bicyclists are experienced riders who can operate under most traffic conditions. They commonly use the existing street and highway system and require sufficient space on the roadway shoulder and other such improvements that allow them to safely mix with motor vehicle traffic.

Basic bicyclists and children share many of the same needs. These two groups are less confident of their ability to operate in traffic and are better served by well-defined facilities that follow low speed and low traffic volume streets or are completely separated from motor vehicle traffic. These types of facilities are the most likely to serve as walking trails.

The bike route facilities envisioned in this plan could take several possible forms. The design standards to be utilized must be tailored to fit existing circumstances, and realistically, will be constrained by budget considerations. Some of the various design standards that may be implemented are as follows:

Shared Lanes:

The Shared Lane design standard, as the name implies, simply would involve automobiles and bicycles sharing a single lane, normally up to twelve feet in width. Automobiles may have to cross the centerline to pass bicyclists. No pavement marking to separate bikes from cars would be utilized. This standard can be applied in areas where traffic volume is low and vehicle speeds average 30 miles per hour or less.

Wide Outside Lanes:

The Wide Outside Lane design standard, or simply Wide Lane, is a low maintenance option that simply provides for a 14-15 foot lane width, still without any pavement marking to separate bikes from cars. This standard is well suited to experienced bicyclists who are not intimidated by high-speed traffic, but much less desirable for inexperienced riders.

Bicycle Lanes:

The Bicycle Lane design standard involves setting aside a portion of the roadway for preferential or exclusive use by bicyclists. The portion of the road for bikes is designated as such by striping, signing, and pavement markings. Bike lanes should always be one-way facilities carrying traffic in the same direction as adjacent automobile traffic.

Paved Shoulders:

Paved shoulders are useful places for bicyclists to ride. Adding or improving paved shoulders is often the best way to accommodate bicyclists in rural areas. Paved shoulders should be four (4) feet wide. For average vehicle speeds over 40 miles per hour, shoulders should be increased to six (6) feet in width.

Separate Bike Paths:

A Bike Path for the purposes of this plan shall mean a bikeway that is physically separated from motorized vehicular traffic by an open space or a barrier. Bike paths may or may not be paved. Often they will be designed to accommodate pedestrians as much as bicycles. Such paths need not necessarily run along side a roadway. Bike paths make excellent recreational facilities and are very safe if well designed and thoughtfully planned. Generally, a bike path should be approximately ten (10) feet in width.

The design standard utilized should be determined based upon the anticipated skill level of the primary users and should take into account the impact such a facility will have upon the residents living along the bike route.

EXISTING FACILITIES

Currently, Culpeper County has little to offer to the bicycling community. In 1998 Culpeper County did receive a grant award under the Transportation Enhancement Act (TEA-21) program which funded a bike route running from Kelly's Ford along Route 620 to Route 3 (shared lane) and along Route 3 to Germanna Community College (paved shoulder). This facility features primarily signage to alert motorists and includes a few spot improvements. There is a kiosk in Remington depicting this route. In the Town of Culpeper, a bike path (multi-use) has been recently constructed in Yowell Meadow Park.

OPPORTUNITIES

There is a tremendous opportunity to establish excellent bike route facilities within the Town and County of Culpeper. There are numerous recreational sites, historical sites, schools, and other worthy destinations that could be linked with bike routes. The most likely scenario under which many of these facilities could be developed is as a feature of a larger road improvement project. There are, however, many other potential funding possibilities including grants and developer proffers.

BICYCLE ROUTE ORIGINS AND DESTINATIONS

Schools

- Culpeper County High School/Middle School
- Pearl Sample/AG Richardson Elementary School
- Farmington Elementary School (Town)
- Sycamore Park Elementary School (Town)
- Emerald Hill Elementary School
- Piedmont Technical Center
- Germanna Community College
- Germanna Technology Center
- Floyd T. Binns Middle School (Town)

Recreation/Parks

- Mountain Run Lake Park
- Yowell Meadow Park (Town)
- Phelps Wildlife Management Area
- Culpeper Country Club (Town)
- Culpeper Tennis Center
- Culpeper Rec Club
- South Wales Golf Course
- Commonwealth Park
- Windmore Foundation
- Spilman Community Park
- Culpeper Community Complex
- Galbreath Marshall Neighborhood Park (Town)

River Access

Kelly's Ford Canoe Launch
Ely's Ford

Historic Sites

Brandy Station Battlefield
Cedar Mountain Battlefield

Community Centers

Clevenger's Corner
Jeffersonton
Boston
Brandy Station
Elkwood
Mitchells
Rapidan
Richardsville
Stevensburg
Lignum
Catalpa

PROPOSED FACILITIES:

The following list of facilities has been compiled by attempting to tie together numerous destinations throughout the County. Loops have been formed where possible to accommodate the recreational bicyclist. Each facility is keyed to a route in the state system of highways. The maps and the Facilities Data chart included in this plan will provide the clearest indication of proposed potential bike routes, however, a brief narrative of each route is provided below:

PRIMARY ROAD ROUTES

The bike routes along Primary Roads in this plan would most likely be paved shoulder facilities or separate bike path facilities.

Route 3

The Route 3 facility connects the village areas of Stevensburg and Lignum to Germanna. It is also a link in two loop routes and it is in part the final leg of the Route 620 facility that connects Kelly's Ford with Germanna.

Route 15

This facility is primarily transportation oriented. It runs from the Town of Culpeper to Piedmont Technical Center and the Cedar Mountain Battlefield.

Route 229

Two segments of Route 229 have been identified for bike routes. At the north end of the road Clevenger's Corner is connected to Route 621, with South Wales Golf Course and the Spilman Community Park near South Wales in close proximity.

The second segment runs from the Town of Culpeper out to Emerald Hill with the High School/Middle School Complex and Catalpa in between.

Route 522

Route 522 is appropriate as a bike route in its entirety. Northwest from the Town of Culpeper, Route 522 would encompass the Windmore Foundation, the village of Boston, and could continue into Rappahannock County to Sperryville. This route provides for a scenic experience.

South of the Town, this route provides a linkage between other routes and includes Commonwealth Park.

SECONDARY ROAD ROUTES

Facilities along secondary roads would most likely be made up of several different design standards. Shared lanes, wide outside lanes, bike lanes, and bike paths might all be utilized. The Facilities Data chart provides guidance as to the type of facility that is most feasible, however this plan will not establish with certainty what design standard will ultimately be utilized.

Route 610

This route would function primarily as a recreational facility. It has a fairly low traffic volume. Richardsville is located at the midpoint of the Route.

Route 620

Spot improvements and signage for this route have been previously planned conceptually and are likely to be implemented in the near future. This route links recreation, historic sites, and Germanna Community College, and is scenic as well.

Routes 621 and 625

These two routes link to one another. Together they provide for the only connection between the northern tip of the county and other points much closer to Town. This route would serve both recreational bicyclists and those bicycling as a mode of transportation.

Route 647

Another long, continuous route, Route 647 runs from Rapidan all the way to Lignum and parallels the Rapidan River.

Routes 649 / 652

This route links Route 522 (south of Town) to Route 15 and passes through the village of Mitchells.

Route 663

Much like Route 685, Route 663 is a long, continuous route that links other routes. It passes through two village areas - Brandy Station and Stevensburg.

Route 666 (A)

This route provides a connecting link from Route 685 to the Town of Culpeper.

Route 666 (B)

This route provides access to the Culpeper Community Complex youth sports field facility.

Route 667

This route links the Community Complex to the Town.

Route 674

This route links Elkwood to the Phelps Wildlife Management Area and Kelly's Ford.

Routes 676 / 677

This route is identified primarily to provide access to the Brandy Station Battlefield. Because of airport and industrial traffic in the area, this route would be a good candidate for a bike path.

Route 685

This route provides an excellent continuous line from Catalpa all the way past Brandy Station to Elkwood. This route is traveled currently by a number of bicyclists.

Route 686

This road carries primarily industrial traffic. It serves several large employers as well as the Culpeper Tennis Center.

Routes 692 / 645 / 643 / 641

This route links Route 15 to Route 29, and continues from Route 29 to Route 522 (Northwest of Town). The crossing of Route 29 is a drawback to the advisability of this facility. Route 641 provides the only link to Route 719 (see below).

Route 711

This route provides for a loop and is integral in providing access to Emerald Hill Elementary School.

Route 719

This small segment of Route 719 is needed to access Mountain Run lake Park.

Route 799

This route provides a link to the Germanna Technology Center.

Route 802

Route 802 runs from Route 621 to the Rappahannock River and into Fauquier County. It is designated as a Virginia Scenic Byway.

LAUREL VALLEY CENTER

A mountain biking facility is planned at Laurel Valley Center on route 770. This facility will offer 4 miles of unpaved trails for the mountain biking enthusiast.

POTENTIAL FACILITIES: TOWN OF CULPEPER

The Town and County of Culpeper have coordinated their respective bike route plans to insure continuity. A map of potential Town facilities is included in this plan. The Town of Culpeper is the commerce center and primary destination for the rest of the County. The success of each jurisdiction in implementing its proposed plan is crucial to creating an overall system of bicycle facilities which will provide the maximum benefit to all of the citizens of Culpeper. As such, it is a goal of this plan to encourage and support the facilities shown in this plan regardless of jurisdiction.

TOWN / COUNTY CONNECTIONS

Connection of facilities between the Town and county occur at all of the major entrances into Town, all on primary roads. These include Route 3, Route 15, Route 29, Route 15/29 Business, Route 229, and Route 522. Connection is also provided to Chandler Street and Nalles Mill Road.

IMPLEMENTATION STRATEGIES

Transportation Enhancement Grant Program

The Virginia Department of Transportation administers the Transportation Enhancement Grant Program that is authorized and funded by the Transportation Efficiency Act (TEA-21). The Transportation Enhancement Program provides matching grants to fund activities or improvements that increase the value or worth of a transportation project or make it more aesthetically pleasing. To be eligible, these projects must relate to the intermodal transportation system in function, proximity or impact.

One of the eligible project categories in the Enhancement Grant Program is the provision of facilities for bicycles or pedestrians. These projects must relate to the transportation function and cannot be solely recreational. In practical terms, this means that these projects must provide connection between two points. Examples of projects include: acquisition, development and construction of separate bicycle or pedestrian facilities on or off road right-of-ways; widening curb lanes or re-striping to create wider curb lanes; paving shoulders; development of bikeways or pedestrians paths which separate these modes of travel from the motorized transportation system.

This program provides a grant of up to 80% of the total project cost. The local government or other sponsoring organization must provide the other 20% either in cash or in-kind contributions. The grants are awarded annually on a competitive basis, in which all projects submitted in a given year compete against each other for a limited pool of funds.

Virginia Department of Transportation

VDOT will consider financially participating construction of a bicycle facility when certain conditions are satisfied. The most important of these conditions are that:

1. The proposed facility is designed to meet current VDOT guidelines and will not impair the safety of either bicyclists, motorists or pedestrians;
2. The proposed facility is a significant link identified in a comprehensive bicycle plan that has been adopted by the local jurisdiction.

VDOT's participation in bicycle facility projects uses money allocated through its construction funding programs and requires financial participation by the local government. In the County, costs for all additional preliminary engineering, right-of-way, and one half of all construction may be provided through either Primary System or Secondary System construction funds. In the Town of Culpeper, these costs may be borne by the Urban System construction funds with the same match required for other highway projects.

**CULPEPER COUNTY BIKE ROUTE PLAN
FACILITIES DATA**

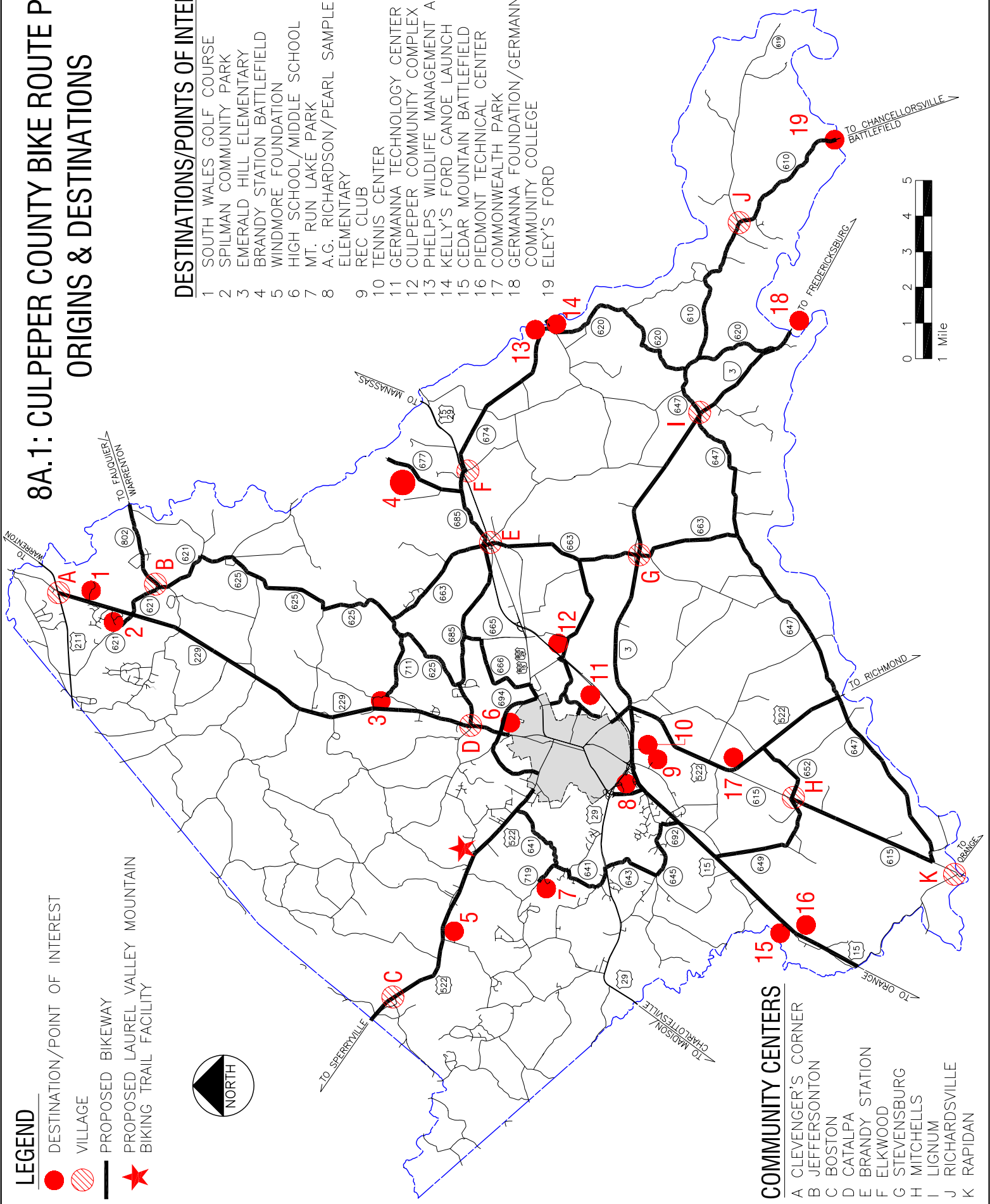
Bike Route	Average Daily Traffic	Posted Speed Limit	Road Width <small>(One Way)</small>	Potential Design Standard(s)						Priority			
				Shared Lane	Wide Lane	Bike Lane	Paved Shoulder	Bike Path	Empha sis		High (1)	Low (2)	
									Recreation	Transportation			
Primary Roads													
3	8,700	55	12 feet				Yes	Yes		Yes		1, 2	
15	7,400	55	12 feet				Yes	Yes		Yes		2	
229	8,400	55	12 feet				Yes	Yes		Yes		1, 2	
522 - S	5,700 - S	55	12 feet				Yes	Yes		Yes		2 - S	
522 - N	7,400 - N	55	12 feet				Yes	Yes		Yes		3 - N	
Secondary Roads													
610	1,000	Unposted	8 feet	Yes	Yes	Yes		Yes		Yes		2	
620	725	"	8 feet	Yes	Yes					Yes		1	
621 / 622	2,000	"	8 feet	Yes	Yes	Yes		Yes			Yes	1, 2	
643 / 641	900	"	9 - 10 feet	Yes	Yes					Yes		3	
647	300	"	8 feet	Yes	Yes	Yes	Yes		Yes		Yes	2	
652 / 649	450	"	8 - 10 feet	Yes	Yes					Yes		2	
663	775	"	8 feet	Yes	Yes	Yes				Yes		2	
666	300	"	11 feet	Yes	Yes						Yes	2	
667	930	"								Yes			
674	130	"	8 feet	Yes	Yes	Yes				Yes		2	
676 / 677	150	"	7 - 9 feet			Yes			Yes	Yes		1	
685	2,000	"	9 feet	Yes	Yes	Yes			Yes	Yes		1, 2	
686	2,500	"	12 feet				Yes				Yes	2	
692 / 649	Variable	"	9 - 10 feet	Yes	Yes					Yes		3	
711	100	"	7 feet	Yes	Yes	Yes					Yes	1	
719	1,000	"	10 feet	Yes	Yes					Yes		3	
799	N/A	"											
802	1,100	"	10 feet	Yes	Yes					Yes		3	

LEGEND

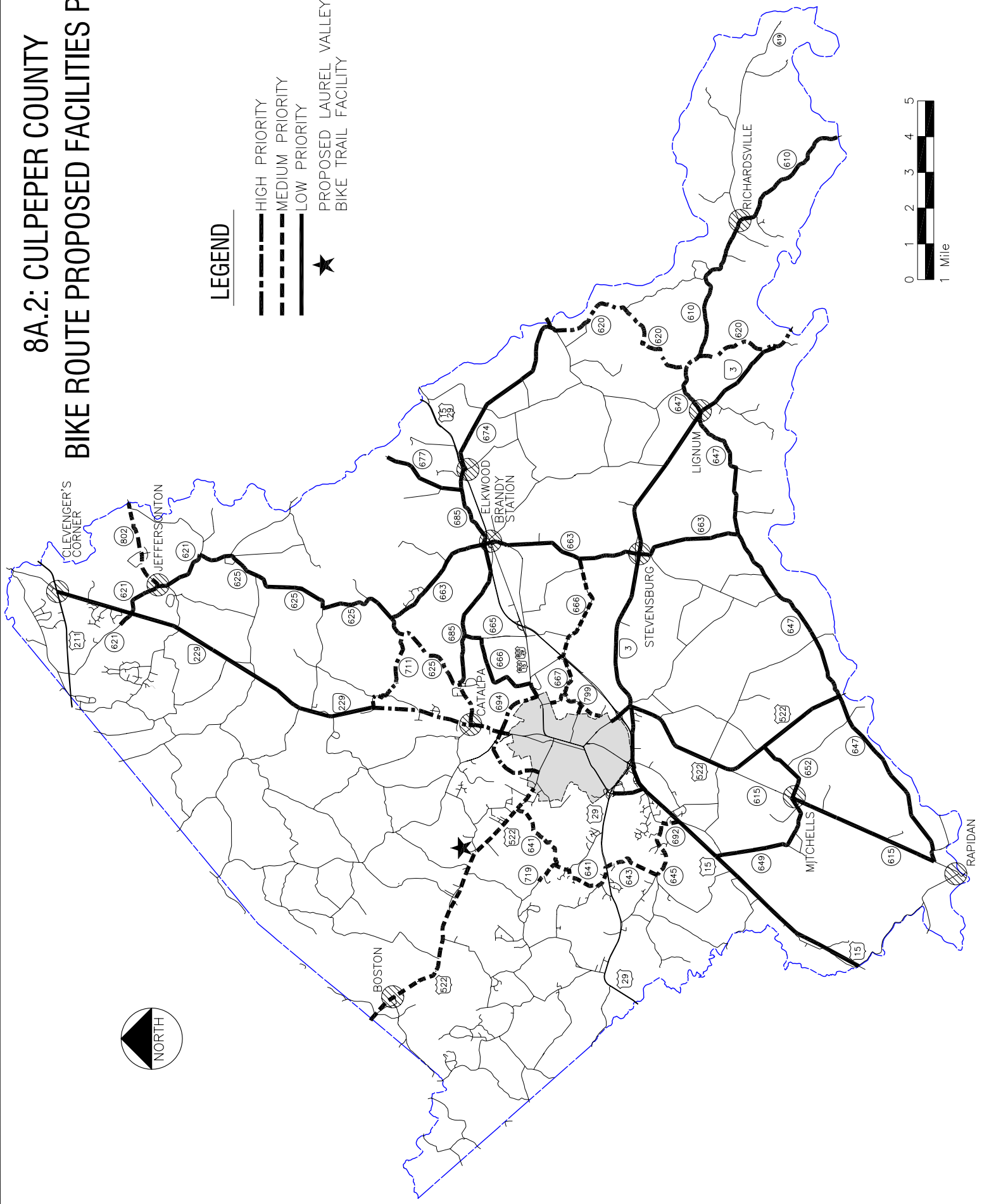
- ## DESTINATIONS/POINTS OF INTEREST

- | | |
|----|---|
| 1 | SOUTH WALES GOLF COURSE |
| 2 | SPILMAN COMMUNITY PARK |
| 3 | EMERALD HILL ELEMENTARY |
| 4 | BRANDY STATION BATTLEFIELD |
| 5 | WINDMORE FOUNDATION |
| 6 | HIGH SCHOOL/MIDDLE SCHOOL |
| 7 | MT. RUN LAKE PARK |
| 8 | A.G. RICHARDSON/PEARL SAMPLE
ELEMENTARY |
| 9 | REC CLUB |
| 10 | TENNIS CENTER |
| 11 | GERMANNA TECHNOLOGY CENTER |
| 12 | CULPEPER COMMUNITY COMPLEX |
| 13 | PHELPS WILDLIFE MANAGEMENT AREA |
| 14 | KELLY'S FORD CANOE LAUNCH |
| 15 | CEDAR MOUNTAIN BATTLEFIELD |
| 16 | PIEDMONT TECHNICAL CENTER |
| 17 | COMMONWEALTH PARK |
| 18 | GERMANNA FOUNDATION/GERMANNA
COMMUNITY COLLEGE |
| 19 | ELEY'S FORD |

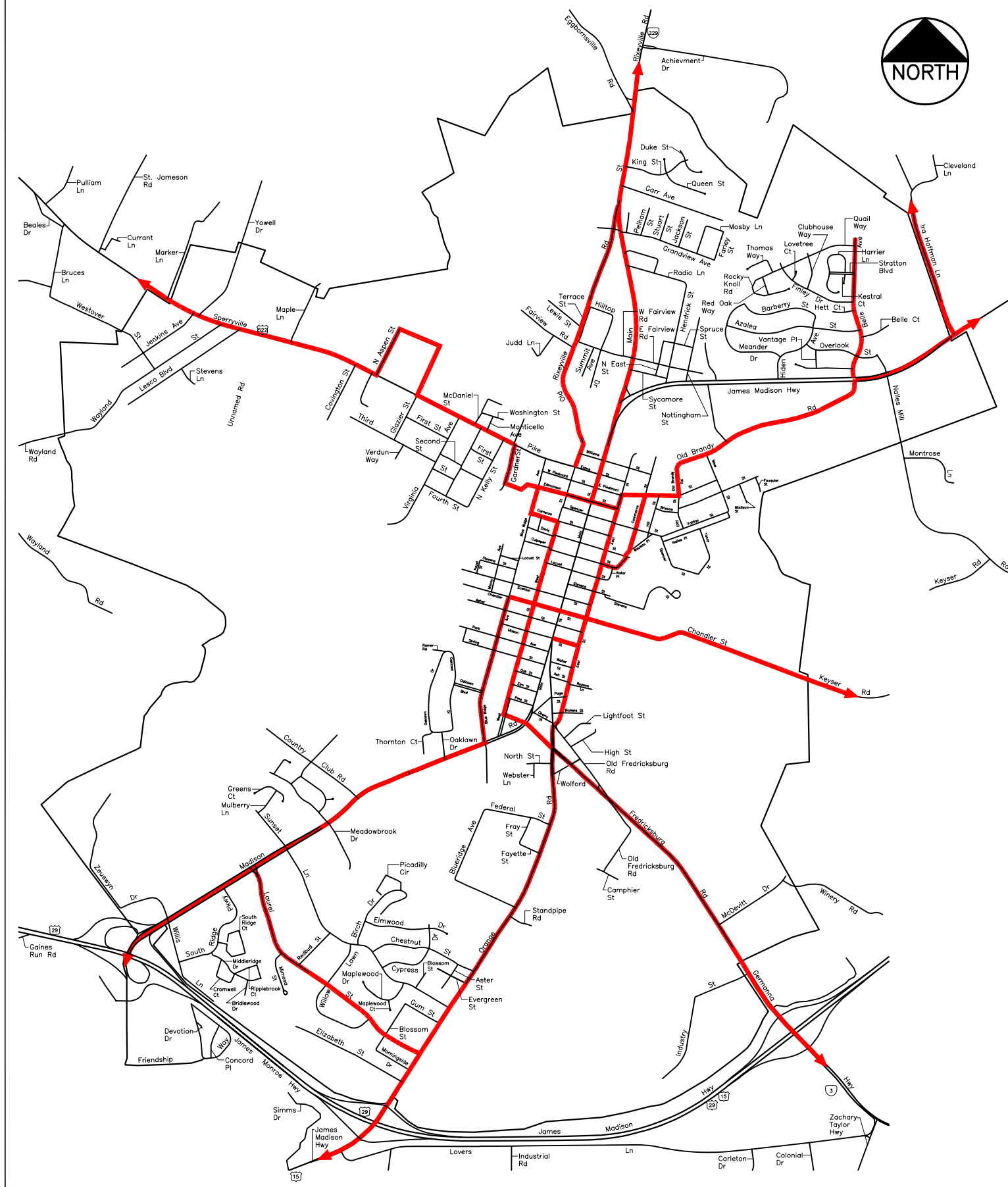
A CLEVELANDER'S CORNER
B JEFFERSON TON
C BOSTON
D CATALPA
E BRANDY STATION
F ELKWOOD
G STEVENSBURG
H MITCHELLS
I LIGNUM
J RICHARDSVILLE
K RAPIDAN



8A.2: CULPEPER COUNTY BIKE ROUTE PROPOSED FACILITIES PLAN



8A.3: TOWN OF CULPEPER BIKEWAY PLAN



REFLECTS TOWN OF CULPEPER BIKEWAY PLAN
ADOPTED 5/11/99